

REMARKS

The applicants note with appreciation the acknowledgement of the claim for priority under section 119 and the notice that all of the certified copies of the priority documents have been received.

Claims 1 – 11 and 13 – 20 are pending. Claim 12 has been canceled without prejudice or disclaimer. The applicants respectfully request reconsideration and allowance of this application in view of the above amendments and the following remarks.

In paragraph 2 of the office action, the examiner states that “input/output unit” and “data input/output region” are not defined in the specification. Further, in paragraph 3 of the office action, the examiner requires a new title and suggests “Biological information detection system.” Accordingly, applicants have amended the specification to define input/output system as “biological information detection system, to define “sheet-like input/output unit” as “sensor unit,” and to replace the title with “BIOLOGICAL INFORMATION DETECTION SYSTEM.” Applicants respectfully request favorable action on the foregoing amendments.

In this connection, counsel for applicants wish to thank the examiner for initiating a telephonic interview on 9 August 2004, to discuss the Requirement for Information of paragraph 2 of the office action, as well as the Response to Requirement for Information filed on 29 June 2004. In the telephonic interview, summarized herein, the examiner agreed that the terms “input/output” are generally known terms. However, he still considered the phrase “input/output” to be too broad and therefore confusing. For example, he states that “input/output” could encompass non-electronic and non-electrical systems. The examiner suggested that the response to the Office Action amend the title and the claims to reflect, for

example, “electronic input/output.” He also suggested amending the claims to be related to biotechnology systems or biomechanical devices, if appropriate.

Claims 1 – 20 were rejected under 35 USC 112, second paragraph, as being indefinite. Accordingly, these claims have been amended to overcome the rejection and to correct the deficiencies identified in the office action. The examiner is respectfully requested to withdraw the rejection thereto.

In paragraph 8 of the office action, Claims 1 – 4, 6 and 11 – 14 were rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 5,448,996, Bellin (“Bellin”) in view of U.S. Patent No. 5, 550,324, Black (“Black”), further in view of U.S. Patent No. 6,095,844, Kasai (“Kasai”). The rejection is respectfully traversed for the following reasons, which are provided by way of example.

As described in the application, one or more aspects of the invention as claimed are directed to a biological information detection system or a sheet-like sensor unit. Independent claim 1 as amended recites, in combination, for example, “a connection box that … includes a housing that is attached so as to sandwich the edge of the sheet-like sensor unit and internally encloses a circuit board that is connected to the wiring, and the housing includes: a slit through which the edge of the sheet-like sensor unit passes and whose upper and lower edges are curved shapes; and means for fixing the edge of the sheet-like sensor unit that is disposed behind the edges of the slit and inside of the housing.” (See also claim 11, as amended.)

By way of background, the location of the fixing means was amended to recite a “means for fixing the edge of the sheet-like sensor unit that is disposed behind the edges of the slit and inside of the housing.” The location behind the edge is clearly shown in the drawings, e.g., Figs. 2 and 3, and discussed in the specification, e.g., page 13, lines 4 – 20; page 14, lines 17 – 28.

The edge of the sheet is sandwiched in between the curved edges of the slit and fixed behind the curved edges. Movement of the edge up and down (e.g., vertical to the plane of the sheet) is limited by the curved edges of the slit that sandwich the sheet, therefore, by fixing the sheet edge just behind the slit, whereby the sheet is not released and the sheet is not bent at the fixing means.

Bellin discloses patient monitor sheets. The office action concedes that Bellin “does not teach a connection box that is attached to the edge of the patient sheet and has a slit through which the patent sheet passes.”

In order to cure the deficiencies of Bellin, the office action cites Black, and Kasai, alleging that Black “teaches a connection box that includes a housing that internally encloses a circuit board and has one end that is open and covered by an end plate,” and that “Kasai teaches a connection box and a slanted slit through which a bus bar is inserted and means for fixing the bus in the slit.”

To the contrary, in Kasai, there is no slit through which a sheet can be passed. Moreover, in Kasai, the slanted edge does not touch the material. In addition, Kasai’s means 23, 26 and 27 (see, e.g., Fig. 4) are located outside, and therefore they cannot be used for fixing the sheet.

Neither Bellin nor Black teach or suggest a the connection box, housing or means for fixing as claimed. Kasai neither teaches nor suggests a connection box, housing or means for fixing. Indeed, any discussion of the slit in Kasai would be inapposite since the means 23, 26 and 27 are located outside. Consequently, neither Bellin nor Black teach or suggest, let alone disclose, anything concerning at least the connection box, housing, and means for fixing, as claimed in combination.

Moreover, there is no suggestion or motivation to combine the references. The office action provides no motivation to combine the references, other than a conclusory statement on

page 4 of the office action that it would have been obvious to “modify Bellin’s invention to include a connection box of Black having the internally enclosed circuit board, and modify the open end of Black’s housing to include a slit with curved edges instead of slanted edges as convention with fixing means in order to secure the bus bar” of Kasai. Bellin itself does not provide a motivation to combine its patient monitoring system with Black’s connection box, modified as proposed, nor does Black or Kasai provide a motivation to offer a connection box modified as proposed.

Assuming arguendo, without admitting, that there is a motivation to combine the three references, the proposed modification would appear to change the principle of operation of either Bellin, Black, and/or Kasai. A combination utilizing curved edges of a slit for sandwiching the sheet, and fixing means for the sheet located just behind the slit edges are neither taught nor suggested in any of these references. The combination and modification as proposed in the office action would appear to require a substantial re-design of Bellin, Black and/or Kasai, in order to accommodate the combination as proposed by the examiner.

For at least these reasons, the combination of features recited in independent claim 1, when interpreted as a whole, is submitted to patentably distinguish over the prior art. In addition, the references clearly fail to show other claimed features as well.

In paragraph 9 of the office action, claim 5 was rejected under 35 USC 103(a) as being unpatentable over Bellin, Black and Kasai, further in view of U.S. Patent. No. 3,832,603, Cray et al. (“Cray”). The rejection is respectfully traversed for reasons including the following examples.

Claim 5 recites, in combination, “a plurality of circuit boards are enclosed on top of one another inside the housing and the circuit board to which the wiring is connected is disposed at the bottom of the plurality of circuit boards.”

The office action admits that Bellin, Black and Kasai fail to teach or suggest “a plurality of boards”. Cray is cited to remedy the deficiencies of Bellin, Black and Kasai. To the contrary, Cray fails to teach or suggest the wiring of claim 5, included in the sheet-like sensor unit and leading signals outside the board. Reconsideration and withdrawal of the rejection is respectfully requested.

In paragraph 10 of the office action, claims 7 – 10 and 15 – 20 were rejected under 35 USC 103(a) as being unpatentable over Bellin in view of black and Kasai and further in view of U.S. Patent No. 6,210,339, Kiepen et al. (“Kiepen”). The rejection is respectfully traversed for reasons including the following examples.

Claims 7 and 15 recite, in combination, “second wiring that is not connected to the data input region and extends from the first edge of the sheet-like sensor unit to a second edge opposite to the first edge.” Claim 8 recites, in combination, that “on the first edge, the first wiring and the second wiring are disposed in parallel, and on the second edge, the second wiring is disposed at a position corresponding to a position of the first wiring on the first edge.”

The office action admits that Bellin, Black and Kasai fail to teach or suggest “a first wiring, a second wiring and a third wiring”. Kiepen is cited to remedy the deficiencies of Bellin, Black and Kasai. To the contrary, referring to Kiepen, Col. 3 lines 15 – 29, and Fig. 3, Kiepen fails to teach or suggest that the second wiring is connected and disposed, as recited.

Moreover, with respect to the rejected dependent claims, applicant respectfully submits that these claims are allowable not only by virtue of their dependency from independent claim 1, but also because of additional features they recite in combination.

Applicants respectfully submit that, as described above, the cited prior art does not show or suggest the combination of features recited in the claims. Applicants do not concede that the

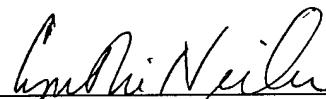
cited prior art shown any of the elements recited in the claims. However, applicants have provided specific examples of elements in the claims that are clearly not present in the cited prior art.

Applicants strongly emphasize that one reviewing the prosecution history should not interpret any of the examples applicant has described herein in connection with distinguishing over the prior art as limiting to those specific features in isolation. Rather, for the sake of simplicity, applicant has provided examples of why the claims described above are distinguishable over the cited prior art.

In view of the forgoing, the applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,



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